

**United States Court of Appeals
for the Federal Circuit**

TOMTOM, INC.,
Plaintiff/Counterclaim Defendant-Appellee

v.

MICHAEL ADOLPH,
Defendant/Counterclaimant-Appellant

2014-1699

Appeal from the United States District Court for the Eastern District of Virginia in No. 1:12-cv-00528-TSE-IDD, Judge T. S. Ellis III.

Decided: June 19, 2015

BRIAN PANDYA, Wiley Rein, LLP, Washington, DC, argued for plaintiff/counterclaim defendant-appellee. Also represented by JAMES HAROLD WALLACE, JR., KARIN A. HESSLER, MATTHEW JAMES DOWD, GREGORY ROBERT LYONS.

ANTIGONE GABRIELLA PEYTON, Cloudigy Law PLLC, McLean, VA, argued for defendant/counterclaimant-appellant. Also represented by CLYDE E. FINDLEY.

Before WALLACH AND HUGHES, *Circuit Judges*, and FOGEL
District Judge.*

WALLACH, *Circuit Judge*.

Appellant Dr. Michael Adolph appeals the claim construction of several terms of U.S. Patent No. 6,356,836 (“the ’836 patent”), for which he is the inventor, by the United States District Court for the Eastern District of Virginia. For the reasons set forth below, this court reverses and remands.

BACKGROUND

I. The ’836 Patent

The ’836 patent describes “[a] method and device for generating, merging and updating data” that can then be used to provide a mobile unit with current, and continuously updated, accurate road network, route, and traffic information. ’836 patent Abstract; *id.* col. 4 ll. 52–65. As stated in the Brief Summary of the Invention, a purpose of the invention is “to establish a method to generate appropriate data utilizable for a practical destination tracking system which carries out a permanent self updating and with data generation which requires little effort. The method is also appropriate for deriving destination tracking data from the data generated in accordance with the aforesaid method.” *Id.* col. 3 ll. 38–44.

Claim 1 of the ’836 patent is the only asserted independent claim:

* Honorable Jeremy Fogel, District Judge, United States District Court for the Northern District of California, and Director of the Federal Judicial Center, sitting by designation.

1. A method for *generating and updating data for use in a destination tracking system of at least one mobile unit* comprising:

generating and storing traveled distance data in at least one storage device provided in said mobile unit at least at predetermined time intervals, wherein the traveled distance data represent traveled sections by at least a series of *nodes* P_i and to each node P_i geographical coordinates x_i and y_i are assigned;

generating and *storing section data in the storage device* provided in the mobile unit, said section data being generated by selecting, from the traveled distance data, *nodes* P_j and P_k , which define contiguous sections P_jP_k , to which at least their geographical starting point and end point are assigned; and

generating a section data file from the section data and *storing the section data file in the storage device* provided in the mobile unit, said section data file being continuously supplemented and/or updated with section data newly generated by the mobile unit.

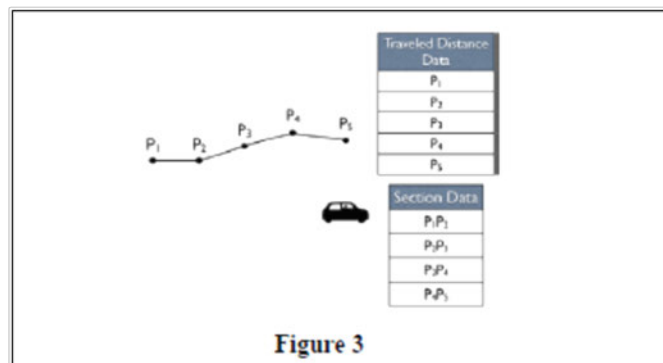
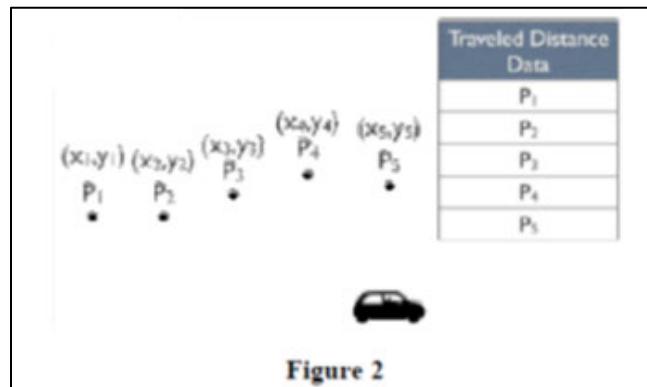
Id. col. 17 ll. 36–55 (emphases added to disputed claim terms).

In other words, as the mobile unit (e.g., an automobile) travels, its location is determined at set time intervals and it generates and stores the data measured at each node. *Id.* col. 3 ll. 52–65. The location's x and y coordinates (for example, longitude and latitude), acquired using the Global Positioning System ("GPS"), are then assigned to that node. *See, e.g., id.* col. 3 l. 66–col. 4 l. 1 ("In addition to the geographical coordinates x_i , y_i , of the points P_i , the direction of the movement i of the mobile unit can be recorded when generating the traveled dis-

tance data.”); *id.* col. 5 ll. 17–23 (explaining a destination node as “given by its geographical coordinates”).¹

The second step of claim 1 involves generating and storing “section data,” which is generated from “traveled distance data” by selecting nodes that form contiguous

¹ Figure 2 in Appellant’s brief depicts its argument that the step in claim 1 involves “traveled distance data” representing a series of nodes. Appellant’s Figure 3 depicts an example of section data (e.g., P_1P_2 , P_2P_3). Additionally, Appellant’s Figures 2 and 3 depict traveled distance data (P_1 , P_2 , P_3 , etc.) having a series of nodes (x_i, y_i) , (x_2, y_2) , etc. Appellant’s Br. 17.



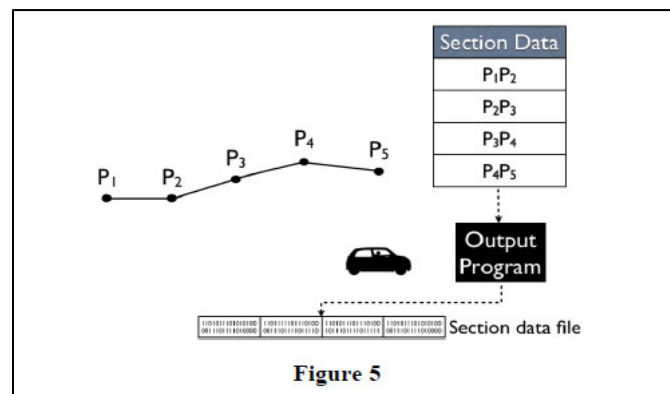
segments of road. *Id.* col. 17 ll. 45–50. A section may include more than two nodes. *Id.* col. 10 ll. 25–29.

According to Appellant, the data is converted using a binary format in order to be written to a file. The section data file is updated with new section data as the “mobile unit” continues traveling and generating new section data. “Claim 1 does not specify any particular storage medium used for practicing the multi-step method besides a ‘storage device.’” Appellant’s Br. 19.²

During prosecution of the ’836 patent, the patent examiner identified a prior art reference that resulted in anticipatory rejections under 35 U.S.C. § 102(b) (2000). The reference, U.S. Patent No. 4,982,332 (“Saito”), disclosed destination tracking systems similar to Dr. Adolph’s initially-claimed system.

On February 28, 2001, when responding to the anticipation rejections, Dr. Adolph stated that “the method disclosed in Saito and the method of the present invention have several significant differences.” J.A. 212–13. Dr.

² Appellant’s Figure 5 illustrates its argument that the third step of method claim 1 involves generating, storing, and updating a “section data file.” Appellant’s Br. 19; *see* ’836 patent col. 17 ll. 51–55.



Adolph distinguished claim 1 from Saito on the ground that “Saito requires that [(1)] an initial database representing road data or road ways be loaded into the system before the additional acquisition of data can take place,” and (2) “the step[s] of previously expressing each point on the roads in a map.” J.A. 213 (internal quotation marks and citation omitted). Relatedly, Dr. Adolph argued Saito teaches a method that requires a CD-ROM, integrated circuit card, or another storage device having a large capacity. J.A. 213. Thus, the Saito system “*require[s]*, for [its] operation, the initial input of road data collected and generated by some external means.” J.A. 213 (emphasis added). Finally, Dr. Adolph contended that the ’836 patent collects not only the geographic points of the areas traveled, but also the direction and distance traveled, as well as “the time relationship between the traveled points, and the fact that the traveled points are contiguous.” J.A. 5.

On April 2, 2001, the examiner again rejected claim 1 as anticipated by Saito and U.S. Patent No. 5,214,757 (“Thad”). Dr. Adolf responded by again distinguishing Saito for the reasons stated above. Dr. Adolph then stated that “Thad only utilizes a GPS receiver to determine and store point coordinates according to a predetermined criteria but, does not generate or store any information relating to the contiguous sections.” J.A. 882 (internal quotation marks and citation omitted). On August 29, 2001, the patent examiner allowed all claims of the ’836 patent, which issued on March 12, 2002.

II. TomTom’s Cayman Data

Appellee TomTom, Inc.’s personal navigation devices (“PND”) use a “proprietary data format” called Cayman Data Format. Appellee’s Br. 13; J.A. 550. Cayman Data is essentially a GPS trail data record. According to TomTom’s expert, the data collection operates as follows: When a trip begins, the starting GPS latitude and longi-

tude readings are recorded by the PND in the Cayman log file. J.A. 429–30. Subsequently, in either one- or five-second intervals (depending on the device model and the software it uses), the device records the absolute value of the change in position from the first reading, called a delta value. J.A. 429. It will also record subsequent changes in position, called a delta-delta value. J.A. 437; Appellee’s Br. 13–14. When either the trip is completed or the GPS signal is lost, the device stops recording delta-delta values. When a new trip begins, or the GPS signal is regained, the process starts over by recording new starting latitude and longitude readings and subsequent delta and delta-delta values.

The Cayman log files remain on the device until the user either directly uploads the data over a cellular connection or manually connects the PND to a computer using a USB cable and uploads the files to TomTom’s servers in the Netherlands using TomTom HOME software. J.A. 430. In the Netherlands, the data is validated, analyzed, and merged. This postprocessed data is combined with historical traffic data obtained from other sources to create speed profiles for each roadway. J.A. 785, 814.

III. Proceedings

This dispute began in 2011 when Dr. Adolph’s German company, AOT Systems GmbH (“AOT”), accused TomTom of infringing EP 0 988 508 B1 (“EP ’508”), the ’836 patent’s European counterpart. In June 2011, representatives of TomTom and Dr. Adolph met in person to discuss the infringement allegations.

On February 3, 2012, AOT filed suit in Germany against one of TomTom’s customers, seeking damages and injunctive relief. Thereafter, TomTom filed a declaratory judgment action in the Eastern District of Virginia, alleging the ’836 patent was invalid as obvious and anticipated, and there was no infringement. On October 3,

2012, Dr. Adolph filed a counterclaim, alleging TomTom directly and indirectly infringed the '836 patent.

On February 25, 2014, the district court issued its claim construction opinion and order. *TomTom, Inc. v. AOT Sys. GmbH*, No. 1:12-cv-528 (E.D. Va. Feb. 25, 2014) (claim construction memorandum opinion) (J.A. 1–29) (the “Opinion”); *TomTom, Inc. v. AOT Sys. GmbH*, No. 1:12-cv-528 (E.D. Va. Feb. 25, 2014) (J.A. 30–31) (the “Order”). The court construed four claim terms relevant to this appeal: (a) “destination tracking system of at least one mobile unit,” (b) “generating and updating data for use in,” (c) “node,” and (d) “the storage device.” Order at 1–2. Based on the claim constructions, TomTom moved for summary judgment and Dr. Adolph moved for reconsideration of the claim construction.

On April 15, 2014, the district court denied Dr. Adolph’s motion and instead issued another written opinion in line with its previous opinion, “in the interest of ensuring that the claim constructions . . . are correct.” J.A. 1094. Accordingly, Dr. Adolph stipulated that he “will not be able to sustain [his] burden of proof to establish infringement of the '836 patent against TomTom” because of the court’s claim constructions. J.A. 1102. The parties stipulated that several of the terms would “actually affect” an infringement analysis. The parties thus requested entry of final judgment of non-infringement. On July 8, 2014, the district court entered judgment of noninfringement in favor of TomTom. J.A. 32–35.

Dr. Adolph appeals; this court has jurisdiction pursuant to 28 U.S.C. § 1295(a)(1) (2012).

DISCUSSION

I. Standard of Review

“[W]hen the district court reviews only evidence intrinsic to the patent (the patent claims and specification[], along with the patent’s prosecution history), the judge’s

determination will amount solely to a determination of law, and the Court of Appeals will review that construction de novo.” *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015) (italics omitted). “On the other hand, in considering extrinsic evidence, we review the subsidiary factual findings underlying the district court’s claim construction for clear error.” *Vasudevan Software, Inc. v. MicroStrategy, Inc.*, 782 F.3d 671, 676 (Fed. Cir. 2015).

II. This Court Can Consider All Claim Constructions on Appeal

As a threshold matter, Dr. Adolph argues this court must remand if “any claim construction is altered upon appellate review.” Appellant’s Br. 32. TomTom counters that “each claim construction provides a separate, independent basis for affirming the judgment of non-infringement, or else that claim construction is not properly before this court.” Appellee’s Br. 27. It is true this court has recognized it does not have subject matter jurisdiction to review a claim construction if that construction does not affect the issue of infringement. *See, e.g., Jang v. Bos. Sci. Corp.*, 532 F.3d 1330, 1336 (Fed. Cir. 2008) (explaining that “Article III does not permit the courts to resolve issues when it is not clear that the resolution of the question will resolve a concrete controversy between interested parties,” and “[i]f we did not require clarification of the stipulated judgment in this case, we would risk rendering an advisory opinion as to claim construction issues that do not actually affect the infringement controversy between the parties”).

Here, the parties’ stipulated judgment explicitly states, and provides detailed explanations for why, the claim constructions actually affect the infringement analysis. J.A. 1101–07. Furthermore, the parties’ summary judgment and reconsideration briefs (filed after the claim construction order) detail the effect the district

court's claim construction has on the issue of infringement. J.A. 805–23, 974–75. Accordingly, under *Jang*, this court will consider all of the district court's claim constructions.

III. Claim Constructions

A. The District Court Incorrectly Construed the Preamble Term “Method for Generating and Updating Data” As a Limitation

The preamble of claim 1 of the '836 patent recites “[a] method for generating and updating data for use in [(“the generating language”)] a destination tracking system of at least one mobile unit comprising.” ’836 patent col. 17 ll. 36–38. The district court held that because the phrase “at least one mobile unit” provides an antecedent basis for the later use of the terms “said mobile unit” and “the mobile unit” in the body of the claim, the *entire* preamble must be construed. Opinion at 17 (“Thus, because claim 1 relies on its preamble for antecedent basis [for the mobile unit], the [other] disputed claim terms in the preamble must be construed.”); *see also* J.A. 1101 ¶ 1 (In the Stipulation for Entry of Final Judgment, the parties stipulated that “[t]he Court determined that two phrases found in the preamble of claim 1 (‘generating and updating data for use in’ and ‘destination tracking system of at least one mobile unit’) must both be construed, in order to provide antecedent basis for the term ‘mobile unit,’ a term that is used in the body of claim 1. The [c]ourt construed these two preamble phrases separately.”). The court adopted TomTom’s construction and determined that the phrase “generating and updating data for use in” means “the data generated and updated by the mobile unit *is used by that unit.*” Opinion at 17 (emphasis added).

Dr. Adolph contends the district court erred in determining that because it relied “on one portion of [the] preamble [i.e., ‘at least one mobile unit’] to resolve an antecedent basis concern” it should also convert “other

unrelated portions of the preamble [i.e., the generating language] into new . . . substantive [claim] limitations.” Appellant’s Br. 46. TomTom counters “the preamble provides both antecedent basis for later claim elements and gives life, meaning, and vitality to the claims. The district court thus properly construed the entire preamble.” Appellee’s Br. 34–35.

If a preamble “recites essential structure or steps, or if it is ‘necessary to give life, meaning, and vitality’ to the claim,” then the preamble can limit the scope of a claim. *Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (citation omitted). “Conversely, a preamble is not limiting ‘where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention.’” *Id.* (quoting *Rowe v. Dror*, 112 F.3d 473, 478 (Fed. Cir. 1997)). “[W]hether to treat a preamble as a claim limitation is determined on the facts of each case in light of the claim as a whole and the invention described in the patent.” *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 952 (Fed. Cir. 2006) (quoting *Storage Tech. Corp. v. Cisco Sys., Inc.*, 329 F.3d 823, 831 (Fed. Cir. 2003)).

The district court correctly concluded—and the parties do not seem to dispute—the phrase “destination tracking system of at least one mobile unit” is limiting because the claims do not concern just any “mobile unit,” but rather “generating and updating data *for use in* a destination tracking system of at least one mobile unit.” ’836 patent col. 17 ll. 36–37 (emphasis added). However, the court erred in determining that it had to construe the entire preamble if it construed a portion of it. *See, e.g., Loctite Corp. v. Ultraseal Ltd.*, 781 F.2d 861, 868 (Fed. Cir. 1985), *overruled in part on other grounds by Nobelpharma AB v. Implant Innovations, Inc.*, 141 F.3d 1059, 1068 (Fed. Cir. 1998) (en banc in part). That the phrase in the preamble “destination tracking system of at

least one mobile unit” provides a necessary structure for claim 1 does not necessarily convert the entire preamble into a limitation, particularly one that only states the intended use of the invention.

Thus, the generating language is not limiting and does not provide an antecedent basis for any of the claims. Rather, it is language stating a purpose or intended use and employs the standard pattern of such language: the words “a method for a purpose or intended use comprising,” followed by the body of the claim, in which the claim limitations describing the invention are recited.

Additionally, the invention claimed in the ’836 patent is structurally complete without the generating language. “A preamble is not regarded as limiting. . . ‘when the claim body describes a structurally complete invention such that deletion of the preamble phrase does not affect the structure or steps of the claimed invention.’” *Am. Med. Sys., Inc. v. Biolitec, Inc.*, 618 F.3d 1354, 1358–59 (Fed. Cir. 2010) (quoting *Catalina*, 289 F.3d at 809). “If the preamble ‘is reasonably susceptible to being construed to be merely duplicative of the limitations in the body of the claim (and was not clearly added to overcome a [prior art] rejection), we do not construe it to be a separate limitation.’” *Id.* at 1359 (quoting *Symantec Corp. v. Computer Assocs. Int’l, Inc.*, 522 F.3d 1279, 1288–89 (Fed. Cir. 2008)).

Claim 1 is directed to a method for generating and updating travel-related data and does not require the data to be used later as the district court found. It requires only that the data be generated, selected, stored, and continuously updated. All of these steps are performed within the body of claim 1. Though the collected data could at some point be used in the context of a navigation system, this is not required of claim 1, and does not convert it into a claim limitation.

The phrase “generating and updating data for use in” does not recite essential structure or steps, or give necessary life, meaning, and vitality to the claim. It was therefore error for the district court to use an antecedent basis rationale to justify converting this independent part of the preamble into a new claim limitation.

B. The Court Incorrectly Construed the Phrase “Destination Tracking System of at Least One Mobile Unit”

In construing the phrase “destination tracking system of at least one mobile unit,” the district court concluded Dr. Adolph disclaimed methods performed on “systems that (i) contain information relating to existing road networks, (ii) rely on an initial database, and (iii) require for operation the initial input of road data.” J.A. 1099. After reviewing the specification, file history, and prior art, the court explained: “Dr. Adolph overcame the Saito prior art by limiting claim 1 to a method that necessarily does not include an initial map database.” Opinion at 19. The court thus construed the phrase to be “a destination tracking system of at least one mobile unit *that does not contain initial information relating to existing road networks.*” Order at 2 (emphasis added to language the court found to be disclaimed).

Dr. Adolph argues the court incorrectly interpreted the prosecution history, and therefore misconstrued the phrase, and should replace “does not contain” maps with “does not require” maps. Appellant’s Br. 51. Specifically, Dr. Adolph contends that during prosecution he stated that the invention described by claim 1 does not *require* an initial map database, not that it does not *contain* one. *Id.* Appellees counter the district court correctly found prosecution history disclaimer when Dr. Adolph differentiated his invention from Saito. *See* Appellee’s Br. 31.

In response to the patent examiner’s October 27, 2000, office action rejecting the ’836 patent claims in light of Saito, Dr. Adolph explained that “[t]he method dis-

closed in Saito and the method of the present invention have several significant differences.” J.A. 212–13. Dr. Adolph continued, “Saito requires that an initial database representing road data or road ways be loaded into the system before the additional acquisition of data can take place.” J.A. 213. However, according to Dr. Adolph, unlike Saito, the ’836 patent “aims at overcoming this significant limitation of Saito and other similar systems which require, for their operation, the initial input of road data collected and generated by some external means.” J.A. 213. Dr. Adolph also stated “Saito only stores data relating to the physical location of nodes and segments or roads connecting the nodes. The present invention instead has the specific objective of generating and storing section data that include other relevant information in addition to the sole geographic location of nodes and sections.” J.A. 214. Dr. Adolph underscored his assertion that a map is not *required* by contrasting his invention with Saito’s, stating, “[t]he present invention allows even a single mobile unit to commence generating and storing data *without the need for* any initial information relating to existing road networks.” J.A. 213 (emphasis added). Finally, he stated:

In fact[,] the present invention, even if the systems consist of a single mobile unit, can generate and store data identifying the geographic location of points or nodes, the length and other characteristics of the sections containing nodes, constantly update the data relating to both nodes and sections if changes occur in the road network, and generate a complete road map with selected relevant information representing all of the sections traveled by the mobile unit over time. This can all be accomplished *without the need for* any initial network data.

J.A. 213 (emphasis added).

TomTom accurately argues that “one skilled in the art is entitled to rely on disclaimers made during prosecution to interpret patent claims.” Appellee’s Br. 29 (citing *Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003) (“The doctrine of prosecution disclaimer is well established in Supreme Court precedent, precluding patentees from recapturing through claim interpretation specific meanings disclaimed during prosecution.”)). This court has

declined to apply the doctrine of prosecution disclaimer where the alleged disavowal of claim scope is ambiguous. . . . But where the patentee has unequivocally disavowed a certain meaning to obtain his patent, the doctrine of prosecution disclaimer attaches and narrows the ordinary meaning of the claim congruent with the scope of the surrender.

Omega, 334 F.3d at 1324.

The district court’s construction was based on the prosecution history of the ’836 patent, but, as demonstrated above, nowhere does Dr. Adolph actually assert that the invention described by claim 1 does not *contain* an initial map database. Because there is no “clear and unambiguous” disclaimer that the tracking system does not *contain* an initial map database, we reverse the district court’s construction. Instead, there is a disclaimer that the system does not *require* an initial map database. Accordingly, we construe the phrase “destination tracking system of at least one mobile unit” to mean “a destination tracking system of at least one mobile unit that does not *require initial information relating to existing road networks.*”

TomTom also argues “this [c]ourt should give deference to Judge Ellis’s fact findings regarding the distinctions Dr. Adolph made in the specification and file history between his invention and prior art.” Appellee’s Br. 29–

30. However, the prosecution history is part of the intrinsic evidence, which this court reviews *de novo*. *Enzo Biochem Inc. v. Applera Corp.*, 780 F.3d 1149, 1153 (Fed. Cir. 2015) (“[W]hen the district court reviews only evidence intrinsic to the patent (the patent claims and specifications, along with the patent’s prosecution history), the judge’s determination will amount solely to a determination of law, and the Court of Appeals will review that construction *de novo*.”) (quoting *Teva*, 135 S. Ct. at 841).

C. The District Court Incorrectly Construed “Node”

The district court construed the term “node” to mean an “intersection, origin, destination, or point at which the vehicle changes direction by more than a given predetermined value in a grid or road network.” Opinion at 12. Dr. Adolph contends the court’s construction “not only excludes the collection of travel data at predetermined time intervals, but it is wholly inconsistent with that basic requirement of Dr. Adolph’s invention.” Appellant’s Br. 34. According to Dr. Adolph,

[r]ather than permit a mobile unit to gather data wherever it goes, the [court’s] construction ignores the explicit language of Claim 1 (which collects traveled distance data at predetermined time intervals) and improperly limits the collection of travel data to an “intersection, origin, destination, or point at which the vehicle changes direction by more than a predetermined value in a grid or road network.”

Id.

We disagree with Dr. Adolph that “[c]laim 1 specifically requires travel data, in the form of *nodes*, to be collected ‘at least at predetermined time intervals.’” *Id.* at 33. The claim requires “generating and storing traveled distance data . . . at least at predetermined time intervals,

wherein the traveled distance data represent traveled sections by at least a series of nodes P_i .” ’836 patent col. 17 ll. 38–43. The specification also indicates that “at least at predetermined time intervals” is an additional claim limitation separate from “nodes.” *Id.* col. 18 ll. 35–41. As TomTom notes, “[n]othing in the district court’s construction precludes collecting data at predetermined time intervals, as that is a separate element of claim 1 that was not construed.” Appellee’s Br. 25.

Dr. Adolph alternatively argues that “[a] node is simply a geographic location” because the ’836 patent does not explicitly define the term “node.” Appellant’s Br. 41. TomTom counters that this definition “renders the term meaningless and is inconsistent with the specification.” Appellee’s Br. 47. We agree a “node” means a “geographic location.” For instance, the specification states:

After completion of a trip or even during the trip, section data are generated from the traveled distance or route data stored in the trip storage unit 40, compressing the traveled distance data by dropping *individual points* P_i and choosing those points P_j and P_k which . . . are most characteristic in defining a section of the route. For example, characteristic route nodes P_j and P_k are nodes where the vehicle direction i changes by more than a given predetermined value, or nodes at the intersection of sections oriented in different directions, or nodes that are otherwise conspicuous. The sections P_jP_k calculated from the *route nodes* P_i stored in the trip store are saved in the section data storage unit 42 in the following manner.

’836 patent col. 10 ll. 8–21 (emphases added).

As recited above, the terms “points” and “nodes” are used in the specification to refer to the same data—“*individual points* P_i ” and “*route nodes* P_i .” When “node” appears in the patent and in its claims, the mathematical

expression “ P_i ” often follows immediately. *See, e.g., id.* col. 10, ll. 14–29; *id.* col. 17 ll. 43–44. And when “ P_i ” appears in the patent, the phrase comprising (or containing) “geographical coordinates x_i, y_i ” is often present. *See, e.g., id.* col. 3 l. 66; *id.* col. 5 l. 51; *id.* col. 9 l. 53; *id.* col. 10 ll. 22–23.

According to TomTom, “[Dr.] Adolph presents no compelling evidence that ‘node’ and ‘point’ are the same, and therefore, the terms should be presumed to be different, as the district court’s construction properly recognizes.” Appellee’s Br. 49. TomTom relies, in part, on Figure 4 in the ’836 patent, reproduced below, to argue “points 1–16 are nodes, because they are starting points, end points, intersections, or places where the vehicle changes directions.” *Id.* “On the other hand,” TomTom argues, “each ‘x’ along the route is a point . . . , but those points are not nodes, as they are not characteristic of road segments.” *Id.*

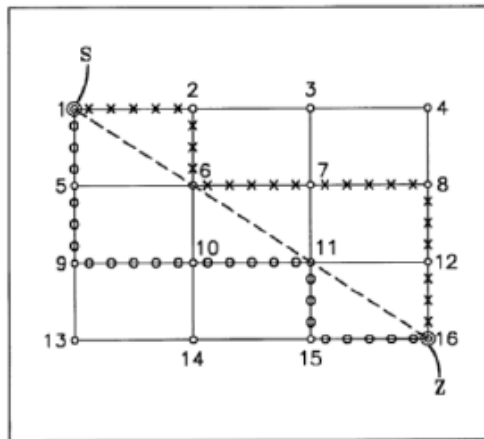


FIG-4

'836 patent fig. 4. TomTom misunderstands Dr. Adolph’s use of the “x” notation in the figures of the ’836 patent. The specification explains that the “x” notation is used in Figure 4 as indicating a *recommended route* from node S

to node Z, not to distinguish points from nodes. *Id.*; *id.* col. 13 ll. 32–34 (“The recommended route S→2→6→7→8→12→Z is represented by ‘x’ in Fig. 4.”).

“Claim terms are generally given their plain and ordinary meanings to one of skill in the art when read in the context of the specification and prosecution history.” *Golden Bridge Tech., Inc. v. Apple Inc.*, 758 F.3d 1362, 1365 (Fed. Cir. 2013) (citing *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc)). “There are only two exceptions to this general rule: 1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of the claim term either in the specification or during prosecution.” *Id.* (internal quotation marks and citation omitted). Here, there is neither lexicography nor disavowal. Rather, the ’836 patent uses the term “node” to mean, simply, a “geographic location.” This construction is consistent with the specification, which associates nodes with various geographical locations, including origins and destinations, and intersections. ’836 patent col. 7 ll. 41–44. The district court’s construction is therefore reversed.

D. The District Court Incorrectly Construed the Phrases “Storing Section Data/Section Data File in the Storage Device”

Claim 1 of the ’836 patent recites “storing traveled distance data in at least *one storage device*.” *Id.* col. 17 ll. 38–39 (emphasis added). The court construed this to mean “storing traveled distance data in at least *one device* used for storing data.” Opinion at 25 (emphasis added). Dr. Adolph does not appeal this construction.

Claim 1 additionally recites “storing section data in the storage device” and “storing the section data file in the storage device.” ’836 patent col. 17 ll. 45, 52.

Relying on an embodiment described in the ’836 patent’s specification, the district court held that each type

of data identified in claim 1 must be stored in a *different* storage device:

As stated above, the patent specification makes clear that (i) traveled distance data is stored in a “trip storage unit or motion storage unit,” (ii) section data is stored in a “section data storage unit,” and (iii) the section data file is stored in the “section data file storage unit.” Thus, the portion of TomTom’s construction that clarifies that each type of data is stored in a different storage device is the correct construction.

Opinion at 27 (referencing ’836 patent col. 9 ll. 21–25). Accordingly, “storing section data in the storage device” was construed by the district court to mean “storing section data *in a separate storage device than the traveled distance data,*” and “storing the section file data in the storage device” was construed as “storing the section data file *in a separate storage device than the traveled distance data and section data.*” Opinion at 27–28 (emphases added). These constructions were erroneous.

As an initial matter, this court has repeatedly cautioned against importing limitations from an embodiment into the claims. *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1371 (Fed. Cir. 2014) (“While we read claims in view of the specification, of which they are a part, we do not read limitations from the embodiments in the specification into the claims. We depart from the plain and ordinary meaning of claim terms based on the specification in only two instances: lexicography and disavowal.”) (citing *Liebel–Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 904 (Fed. Cir. 2004); *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)).

“The starting point for any claim construction must be the claims themselves.” *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999). As

noted, claim terms are generally given their plain and ordinary meanings to one of skill in the art when read in the context of the specification and prosecution history; the only exceptions to this general rule are when the patentee acts as his own lexicographer or when he disavows claim scope. *Golden Bridge*, 758 F.3d at 1365. Here, claim 1 requires section data to be stored in “*the* storage device.” ’836 patent col. 17 l. 45 (emphasis added). Claim 1 also requires the section data file to be stored in “*the* storage device.” *Id.* col. 17 l. 52 (emphasis added). “*The* storage device” can only refer to one thing: the “at least one storage device” found in the first limitation of claim 1. *Id.* col. 17 ll. 38–39 (emphasis added). Nothing in the claim language suggests the section data and the section data file would be stored in any storage device other than “*the* storage device.” *Id.* col. 17 l. 45 (emphasis added). Certainly, the claims do not *require* the data be stored on different devices.

Additionally, the specification discloses the different data types can be stored in the *same* storage device, contrary to the district court’s interpretation. In explaining how one could interrupt the generation of both traveled distance data and section data if any of that data already exists in the storage unit, one portion of the specification recites:

To avoid unnecessar[ily] overburdening *the storage device* provided in the mobile unit, additional provisions can be made to permit the generation of *traveled distance data and/or section data* to be interrupted if the newly generated data already exist in *the storage device* of the mobile unit, and to cause said generation to be restarted if the newly generated data have not yet been stored in *the storage device* of the mobile unit.

Id. col. 4 ll. 6–13 (emphases added).

Therefore, these terms should be construed to reflect their plain and ordinary meaning: “storage device” means “storage device.” It does not mean the claimed invention must use a different storage device for each type of data, as all three types of data can be stored on the same storage device as described in claim 1.

CONCLUSION

For the reasons set forth above, the appealed constructions of the district court are reversed, and the case is remanded for proceedings not inconsistent with this opinion.

REVERSED AND REMANDED